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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,375	12/08/2003	Philip J. Barr	368292001700	4368

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EXAMINER	
KIM, JENNIFER M	

ART UNIT	PAPER NUMBER
1617	

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/731,375	BARR ET AL.	
	Examiner	Art Unit	
	Jennifer Kim	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *5,8,11 and 13-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *5,8,11 and 13-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 4/6/2005
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

S.00

DETAILED ACTION

The amendment filed April 6, 2005 have been received and entered into the application.

Action Summary

The rejection of claims 1-4, 6 and 10 under 35 U.S.C. 102(e) as being anticipated by Shapiro (U.S. Patent No. 6,489,308B1) evidenced by Grote et al. (U.S.Patent No. 6,670,327B1) is hereby expressly withdrawn in view of Applicant's amendment.

The rejection of claims 5, 7-9, 11 and 12 under 35 U.S.C. 103(a) as being unpatentable over Shapiro (U.S. Patent No. 6,489,308B1) as applied to claims 1-4, 6 and 10 above, and further in view of Grote et al. (U.S.Patent No. 6,670,327B1) is hereby expressly withdrawn in view of Applicant's amendment.

Applicants' arguments with respect to claims 5, 8,11 and 13-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 5, 8, 11 and 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avidano et al. (Head and Neck Surgery, Oct., 1998) in view of Grote et al. (U.S.Patent No. 6,670,327B1) of record and further in view of Brake et al. (U.S.Patent No. 4,752,576).

Avidano et al. teach otorrhea samples were collected from patients with otitis media and a perforated tympanic membrane and the samples were treated with

ilomostat plus alpha1-antitrypsin. (abstract). A statistically significant ($p<0.05$) decrease in protease activity was observed.

Avidano et al. do not teach the actual treatment of an individual having otitis media with a perforated tympanic membrane; causes of otorrhea and tympanic membrane perforations due to post-tympanostomy and tympanostomy; effective amount; further comprising steroid and the source of the alpha-1 antitrypsin is yeast-expressed rAAT.

Grote et al. teach the use of corticosteroids for the treatment of otitis media (column 2, lines 2, lines 34-45). Grote further teaches a treatment of otitis media with or without tympanostomy. (column 6, lines 50-55). Grote et al. teach that conditions such as tympanic membrane perforation are complications associated with otitis media. (column 6, lines 20-35).

Brake et al. teach a method for producing alpha1-antitrypsin (AAT) by recombinant methods from yeast. This method provides high level production of the protein. (abstract, column 1, lines 59-68, column 2, lines 7-15).

It would have been obvious to one of ordinary skill in the art to treat patients with otitis media with a perforated tympanic membrane with a combination of alpha1-antitrypsin and ilomastat for the treatment of any otitis media patients with otorrhea resulting form tympanic membrane perforation irrespective of the cause of how the perforations are caused by since the combination statistically decrease protease activity which is beneficial in treatment of otitis media. The motivations to employ this

combination comes from Avidano et al's teaching that this combination is more effective in treatment regimen than either ilomastat or alpha1-antitrypsin alone.

To employ corticosteroid to Avidano et al's regimen to treat a patient with otitis media and a perforated tympanic membrane would have been obvious because all the components are well known individually for treating otitis media and corticosteroids are well known by Grote et al. for the treatment of otitis media. The motivation for combining the components flows from their individually known common utility (see In re Kerkhoven, 205 USPQ 1069(CCPPA 1980)).

It would have been obvious to one of ordinary skill in the art to employ the recombinant AAT obtained by yeast –expressed rAAT because Brake et al. teach the method of producing alpha1-antitrypsin (ATT) by recombinant methods in yeast provides high level production of the protein. One would have been motivated to employ yeast-expressed rAAT in Avidano et al's combination because the method of producing the alpha1-antitrypsin by yeast method provided high level of production and is well known by Brake et al.

The amounts of active agents to be used deemed obvious since because once the usefulness of the combination is known to treat a condition, it is within the skill of the artisan to determine the optimum amounts and they are all within the knowledge of the skilled pharmacologist.

Thus, the claims fail to patentably distinguish over the state of the art as represented by the cited references.

None of the claims are allowed.

Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Kim whose telephone number is 571-272-0628. The examiner can normally be reached on Monday through Friday 6:30 am to 3 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sreenivasan Padmanabhan
Supervisory Examiner
Art Unit 1617

Jmk
June 23, 2005
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